ISSUE 8
MAY - JUN
80p

ZAP

FOR SAM COUPE & SPECTRUM

CONTENTS

general

Editorial 2
Letters Mac is back at last! 3
Soapbox 4
Profile 27
Bookshelf Mick's look into the literary world 28
Comic Kiosk 29

computers

Interview. with new Creek editor, Richard Eddy 6
Mind Games 9
Playpen 12
Backchat: error messages 15
Publica Dominius 17
Chip Shop 19
MasterPlan PAW/GAC pt 8
Semantics
Program Box with Steven Kemp
Intergrated Bits Sem Sound Help by Steven Wilson
Sam to the Rescue!
Atari file recovery
On The Road 30

strip

Sentinel 24

Cover by DB

ZAT 8.May/June 91 EDITOR D Blackburn TECHNICAL EDITOR D Ledbury PRODUCTION/AD'S EDITOR M Seeby PROOF READER/GENIUS M Garbett CONTRIBUTORS M Scholes, J Crawford, S Mullen, G Middleton, S Kemp S Wilson and M Garbett Printed at Modeley People's Centre and L D T D ZAT C 90 Sentinel DB Wallpaper Strip MS/DB 90

EDITORIAL
by D. blackburn

Harold Mac Millian once quoted that the "wind of change is blowing", and indeed changes are coming that ZAT readers should be aware of. Don't worry though, none are too drastic, well except maybe me becoming full time Editor.

As some of you may have noticed, we placed several advertisments in well known computer magazines requesting for new contributors. In total we received 30 potential slaves to row in the ZAT galley, but due to dehydration and lack of food, we've wittled the number down to a managable number. So without further delay let me introduce you to one and all.

Taking over Arcade Alley are Thomas Vonner and Richard Swann. Both will be supplying some tips and hints, but they do need your input in order to expand the Alley in the long run. Also contributing to the Alley is Malcolm Stead who will be providing Game maps to those who prefer pictures as well as words. Anyone supplying tips/cheats/pokes should send them via our main address, and we will forward them on to the Alley team.

Thomas is also an avid puzzler setter. Both he and Mike will be issuing you all manner of brain-squeezers in Pain Palace.

Resident adventurer, Andrew, is joined by new quester Joseph Crawford.

Having began the ball rolling with Back Chat I take leave of ZAT's computer section for beginners (with Mac in tow) and hand the torch over to Mr Andy Davis. Andy will be writing and providing all the programming material for ZAT's guide to Basic. Resident Sam programmer, David, will be supplying Andy with equilivent Sam programming tips. Andy also has a few other projects up his sleeves as well.

Playpen gets more crowded. Joining our existing Pen Pals are David Nichall and Stephen Mullen. Both will be covering Spectrum games past and present while myself and David will stick to Sam.

Publica Dominius will be co written by David Ledbury and Guy Middleton.

The biggest changes are happening to the Chip Shop. Although David will still be reviewing all the latest utilities for both Sam and Spectrum, he will concentrate his energies on his Tech Editor duties, and the fore mentioned disk project. Thus we had to split the Shop into 5 sections. First is Andrew's Master Plan which is his on-going programming tutorial with PAW and GAC. Next is Sam Antics with Guy, followed by Codebreaker, our returing section on Machine Code handled

by newcomer Daniel Cannan. Then there's Program Box which as you can guess concentrates on programming routines created by Steven Kemp. Lastly Intergrated Bits by Intergrated Logic's Steven Wilson who begins his column with a guide to Sam's sound chip capabilities.

As well as Polly's Science Fiction history, Mick's Books, and the first in depth news page for fellow Team Sam members you can see we've bagged quite a few in the proverbial net. Since I've seen what these tallented people are capable of, ZAT should go from strength to strength in months to come.

By the way I want to personally thank everyone who opptied having seen the ad's. We enjoyed all the letters, as do we enjoy all letters that we receive although lately there's been a bit of a lull again so now that Mac's back in charge of the letters page, we want to hear from you!! Surely some of you must have some comments, critisms points to raise from this or past issues or to write into Soapbox, or whatever. So come on, write today, and who knows you may even get the odd prize!

Next on the agenda is our new venture on Disk specifically aimed firstly for our Sam users. Originally way back in Soapbox in issue 4, Martin suggested that ZAT should have its own PD library. A dream then, a virtual reality soon! Both David, and regular Sam demo master, Guy, are putting the finishing touches to our first disk, more details of which will appear in next issue's PD column. Spectrum owners don't worry, we haven't forgotten you. We're endeavouring to create a similiar venture for you, that will appear some time before the year is out.

I'll briefly mention a subject that I will go into more detail in the next issue. Recently, as a Team Sam member Sam Co published the afficial equitations for team members. One of the suggestions mentioned in the attached questionaire was that Team Sam members endevour to try and co operate more fully with other members. As a result of this we have created the Team Sam Report and also we are having talks with fellow members, including FORMAT, FRED, SAM SUPPLEMENT, BLUE ALPHA ELECTRONICS, ENIGMA VARIATIONS, and more besides on how we can contribute to this idea. More on this next time.

Finally you'll notice that in future, every letter you receive will carry a small number in the top right-hand corner. This isn't a secret code, or bits of my phone number (as it happens I'm not connected) but your personal Customer Identification Number. Its just our way of keeping track of who's who for record purposes but this number may be used in other ways as well - we'll keep you posted.

Anyway, that's enough of this extended Editorial. I'll let you get on with the rest of the issue and I'll see you all next time.

All the best. D Brockbank

LETTERS with MAC

Dear Editor

Thanks for the latest issue of ZAT. I'd only read about your illustrious publication in a few computer magazines until the February All Format's Show, when I encountered your stand, featuring a tempting array of magazines for sale.

As they looked quite well produced, were a very fair price and your staff team were so friendly and persuasive, I bought the back issues and also subscribed on the spot. (The arm twist only resulted in a bad sprain, rather than a break!)

I'm glad to say that I'm suitably impressed with ZAT. I'm not into CB or comic strips too much, but there's still plenty of interesting material to read, especially as I own a Spectrum +2B with Plus D system and a twin drive 512k Sam Coupe. It's good to see that Sam is receiving plenty of enthusiastic support in the way of disk and printed magazines (with the exceptions of YS, SU, CRASH and NCE - although Robin Alway does his best.) Sam owners who do not subscribe to ZAT, OUTLET, SAM SUPPLEMENT, FRED, or ENCELADUS are missing out on a lot of Sam stuff. One new magazine that's planned is SINCLAIR & SAM COMPUTING, which sounds promising.

ZAT is certainly an interesting and varied magazine. I like to see some games coverage, but not in excess, and you've just about got it right. It's good to see the Mind Games pages too. The reviews are well written and the 'serious' material is also very readable. Although I am not very keen on comic strips, as I mentioned earlier, the standard of the drawing is high, and the overall graphic look of ZAT is high quality, as is the printing.

One thing I love to see in magazines is a good letters section, if there is enough space. (OUTLET is great for letters, especially as the prove to be of great help with all sorts of problems.) A

well compiled, stimulating letters section can really get readers involved with the magazine and its subject matter.

Thanks again for ZAT to you and all the staff. Long may you continue, and may your circulation get bigger (?!).

Best wishes,
Phil Glover

Well, I normally start off with an intro to the letter's page, but after reading this letter well I mean, who needs an intro when someone does it for me!

Anyway, thanks a lot for you letter Phil. I'm glad the arm twisting did not lead to a broken bone and I certainly hope that you've had your money's worth. You did take us by surprise though when after twisting your arm you asked for all the back issues and paid a subscription, I think we'll try a bit more arm twisting and see if it works again.

I'm glad to see that you also like to see a good letters page in magazines. I couldn't agree more but to have a decent sized letters page in ZAT we do need lots more letters from readers who may have problems, info, tips, gripes n'groans, praise for our mag. (if you send a letter of praise you can be sure your letter will get printed). IN fact we want letters about anything. So get your thinking caps on and get writing, as a bit of encouragement we will be giving away a free, yes free, game for the best letter(that's if we get enough letters to choose from) so lets hear from you soon.

On a lighter note I would like to thank Darren for taking over the letters page for the last couple of issues during my absence. The reason for my absence is that my wife gave birth to a baby boy in Feb and I had to stay home and take over as housewife. Temporarily. Thank god things are back to normal now, (my hair has started growing back and the bruises on my forhead are healing, and I have been released from the asylum.

All right, all right stop laughing, you od bang your head against a brick wall and pull your hair out if you had to look after three delightful little girls for 4 weeks. I'll say no more.

ta,ta for now, Mac

SAM, My First Impressions.

I am typing this article using a Sam Coupe that Assistant Editor of ZAT, David Ledbury has been able to arrange for me to be loaned for evaluation purposes. (Thanks Dave!)

I have to say that the Sam has impressed me from the very start, the only possible critisism being pointed out by my Fiance (hello, Annie!), who is a professional typist, that the keyboard is a little noisy so might not be ideal for long stretches of typing. Sadly, this is a fault of many computers costing many times the cost of our hero Sam. (Although this can differ from machine, to machine. D.L.)

Having used PC compatible machines & Atari STs at work, I think that SAMDOS is designed to help you use your computer, something which can not be said for other DOS systems!

One of the amazing things about Sammy is the amazingly low price for a machine of such wonderful properties. The fact that up to 16 of the little beauties can be networked, without any external equipment or software, means that for many applications Sammy is MORE than a match for less flexible machines costing more than double the price. And if we consider the fact that Sammy comes complete with a MIDI interface, a SCART socket, a mouse interface, a standard 64-pin Euroconnector (instead of an easy-wearing edge connector!), a "stereo out' facility and a light pen port (ideal for use by someone unable to use a keyboard, for example) and let's not forget the ever-handy joystick port too, which unlike a certain machine, I could mention, is a STANDARD joystick port!

(Although a simple adaptor is required to plug in a second stick.)
Our friend is also smaller than any other computer of similar facilities, so will take up less space and will also cost a heck of a lot less money.
The graphics (on a TV SET, MIND!!) were not much less than an Atari ST and with a monitor would, I expect, look even better than on a TV screen.

You can't 'do' Mandelbrots on anything less than a PC or an ST-DON'T YOU BELIEVE IT!!
The Sam Coupe is a computer that gives you 16 Bit 'quality' at an 8 Bit price. Some people argue that if you can get a 16 Bit computer or an 8 Bit one, you should always go for the 16 Bit computer. This is a false arguement. Please let me explain why. A Testarosa sports car can accelerate quicker than a Mini Cooper S. It is faster than a Mini Cooper S, too. So if pitched in competition between the two, the Testerosa would win, hands-down, right? Sorry, you are wrong I forgot to tell you that it was a cross-country rally!

I really appreciated a letter I received, from one of our readers- P. Glover, who agrees with my point of views regarding the differences between piracy and backing up software for personal use.
He also made an interesting observation. He wondered if it would be possible to incorporate a catalogue number into the computer, and have this 'embedded' into the software, so that it could only run on the specified computer. An interesting idea indeed!

Why are some programmers, so stupid?
Their idea of software protection is to fix the keyboard, so that if the break key is pressed, the computer crashes!
This even happens with software that invites you to 'press any key'! Oh naughty!
Besides which, on the 128k, it's not that far from '0' to 'break', is it!

ZX Guaranteed / Essential Software

Mr G.A. Bobker, 29 Chadderton Drive, Unsworth, Bury, Lancs. (Tel: 061 766 5712)

007 DISASSEMBLER
(Consisting of 2 programs: 007 Disassembler and 007 Reveal)

A full Z80 disassembler which at the touch of a button, switches from Hex to Decimal, or vice versa. Centronic printers supported. ALL's and REL's displayed in a different colour, to aid reading.

007 Reveal, displays the bytes from ANY disc program in Hex, Decimal or ASCII. Displays messages in 'SamDos'. Even works with +D/Disciple SNAPS and programs.

Available SAM Disc. £6.95

Are you a SF/Fantasy, D&D, LPR, Books, Film and Video Fan?
Then I suggest you read
The Adventurer's Herald
For more details on this Quarterly fanzine contact Rik Jones: P.O. Box 522, Tweedale, Telford, Shropshire.
Single issues 80p (plus 20 postage and packaging)

INTERVIEW with *Richard Eddy*

Special note: since we did this interview, Richard has since become the new Editor of Crash... congratulations!

When did you first become a journalist and in what capacity?

I started in the Summer of 1986 on a old Newsfield magazine for Amstrad games called Amtix!

What training did you have?

Very little formal training, it's more a case of learning as you go along. As far as qualifications go, if you want to get into magazine journalism, endless passes in English and Art are pretty essential (which I got lots of, ho! ho!) and then poping off to a specilist college, like the London College of Printing, is a good move

When did you first join Crash?

I Joined Crash in the Spring of 1987

What do your duties at Crash entail?

Now I'm Editor I am responsible for the whole magazine from start to finish (and that includes wheelin' and dealin' to get hold of games for the cover casette, a particularly "favourite" job of mine). The first week of a schedule (which lasts four weeks usually) is mostly spent with my Art Editor laying out the last issue, both of us running around like headless chickens as pictures disappear from right under our noses and pieces of text suddenly don't make any sense! I'm on the phone a lot in the first week too, trying to get a picture of what's going to be big news over the next few weeks. The second week's jobs include pleading with software houses to send us review products well before deadline and not on deadline day (as most of them do). The tape has to be ready by then and most of the magazine sections (like the Sam page, tips, preview specials and the cover) should be well on the way. The third week takes us into yellow-alert mode as we start really hassling people for product, pictures and stuff that hasn't arrived and most of the magazine should be (but often isn't) written by then, with perhaps the exception of reviews. Reviews, screen shots and a lot of panicking happens in the fourth week as we attempt to pull the whole thing together for the Friday deadline. We usually make it, though often there's always something to do at the very last minute! By the end of the fourth week, I'm dead and recover over the weekend in the pub thinking up loads of crap jokes in the next issue.

What are your favourite

games?

Fave game is Super Mario World on the Nintendo Famicon, it's simply the best game ever (though I don't get a chance to play it often). On the Speccy, Total Recall has been one of the best games over the last few months, and Gremlin's Hero Quest game is really spiffy (and a bit spooky too!).

Have you ever written a game? If so, which one? If not, would you like to?

I did write a game which was like space invaders. The player had to line their weapon up with a blob at the top of the screen and if they hit it then they would score. The more times you hit it the more you would score.

Which programmer do you admire and why?

Programmers are a funny breed, aren't they? Most of them are really professional and can get stuff together, though I've had some real buggers to deal with: interviewing a programmer who has nothing to talk about than coading, raster-ops and fixed screen variables (what ever they are) is complete hell. It's a pity there are very few high-profile Speccy programmers around these days, some just don't want publicity. Most of the big names from the old days have moved onto the 16-bit machines.
However, Pete Cooke must rate as one of the top Speccy programmers, the stuff he was doing a couple of years ago was just amazing. John and Steve Rowlands (who did the C64 game Creatures for Thalamus) are brilliant too, they have a wicked sense of humour in their games.

Do you have a computer at home?

Yes, a word processor

What is your favourite book?

Anything by Terry Prachett, his Discworld novels are soooooo funny and clever. Jilly Cooper (who a lot of people reckon isn't much cop) can be delightfully amusing, especially The Common Years collection of stories...and Swift's Gulliver's Travels (complete, unedited) is bizzarre, and really digusting.

Do you have any hobbies?

I'm on a complete fitness drive at the moment. Some times I'm really happy being a complete slob and being fat, then I'll get this sudden impulse to get into shape. So, at the moment I'm usually exercising for a couple of hours a day (and then popping down to the pub for a slimline tonic I don't think).

What is your favourita film?

I love films, Pretty Woman I can just watch over and over again. Julia Roberts is just the most beautiful thing ever (except my missus, of course).

What is your view on budget games?

A very positive view on budget games, especially if they are of high quality and prices are kept at a reasonable level.

What is your view on fanzines?

They're good, as long as they are produced well and not done in a rush, like in the school holidays.

What do you think the future will hold for the Spectrum, and particularly the Sam Coupa?

The Sam is a good buy for those people who will not be able to buy an ST or Amiga, but it will not totally take over the Spectrum although it will keep the lower end of the computer market open

for a long time to come.

What magazines, apart from Crash, do you read?

Smash Hits is an essential read, Empire's kinda groovy and I usually end up reading all the computer magazines at work (even the really boring ones; i.e. most of them). Good Housekeeping's a laugh a minute and I never miss the Mail on Sunday's cartoon section (Garfield's great).

Who do you most admire and why?

Ah, when you ask most people this question they come up with someone they hardly know, just a personality. Okay, so maybe they might admire his or her work but that person might be a real git behind their media exposure. So I'll plump for Oliver Frey, whose ideas are always brilliant and who pays my wages.
His art is amazing and can produce a full colour cover in just 2 days, 1 day if deadlines are tight, although he doesn't like to rush his work.

And lastly, What is your favourite, and least favourite television programmes?

Red Dwarf is still the funniest thing ever, and Berverly Hills 90102 is just the ultimate in trash tv, it's amazing! Um, The Wonder Years is smashing, Rosanne is too and so is Going Live!
The worse programme has to be Remote Control, it's not funny (even though it pretends to be), I still watch it though. Strange, eh?).

ZAT thanks Richard for his time, with this interview. Next: Andy Wright and Alan Miles!

FLEXIPAGE

SAM/SPECTRUM
VIEWDATA PLUS
& GRAPHIC AUTHOR

Auto/ Interactive/ Free Format uses Spectrum & all Sam Modes SCREENS

Write your own Adventure Games, Automatic Displays & Slide Shows Disk/Tape +D, +3 SAM
£15 less 10% to ZAT readers, with FREE PUBLIC DOMAIN demostrations Crime Quiz (Interactive) + Automatic Adverts, + FREE SAM UPDATES
Demostrations only £2, deductable from later Flexipage purchase For full details, send SAE to Flexipage Software 20 The Parklands, Droitwich Spa Worcestershire WR9 7DG

INTEGRATED LOGIC

SAM UTILITIES DISC inc
SOUND/SPRITE/FLASH
HELP, TAPE/DISC READER
ST CONVERTER,
PLUS MORE ON DISC!
PRICE £1.00+ DISC

ALSO SPECTRUM ART CLUB
MEMBERSHIP FEE £1 00+TAPE

FOR DETAILS CONTACT:

STEPHEN WILSON
INTERGRATED LOGIC
41 WARRIX AVENUE
IRVINE, AYRSHIRE
SCOTLAND
KA12 0DW

Mind Games

A. Vincent & J. Crawford

Following the success of MindGames 1, the second entry into this series recently fell into our laps, straight from David Tonks (DATON), himself. Before we pass final judgement, comparing whether this latest venture has improved upon the original, we'll delve into the pack's contents. This time around, the pack veers more strongly towards traditional puzzles and board games for inspiration, rather than purely designing 'original" themes...

Game 1: Quintet

This is based on the game of Yartze. The idea is that you roll 5 dice, luckily aiming to fill in the list of categories on your score card. For examples; collecting as many of a given number (1's, 2's..etc), chances, straights and groups (trios, quartets, and the star of the show, quintets!). The ultimate aim is to fill in each category, with the highest score possible, against that of your opponent. The one with the overall highest score, wins.

I must say that before playing this, Yartze was a great puzzle to me, but having played this a few times, and winning a few times as well (although my winning streak on DATON's recent SAM Supplement game, Explode is still unequalled), it actually makes sense to me at last, and I found it very enjoyable to play.

Game 2: Line-Up

This game is a combination of noughts and crosses and connect 4, but with a added dimension. You play the game on a 4 by 4 by 4 grid, suported by columns, with the nearest removed enabling you to see the grid. The object of the game, played against the Coupe, is to simply create a line of four, in any given direction, on either one or more level. Sounds easy, but believe me, unblocking a kitchen sink would be considered more easier a task than trying to beat the computer at this game.

Game 3:Pixsaw

This time you're faced with several devious sliding puzzles, each to be completed in an allotted time. On the screen you will see a pretty graphic, divided into 16, or 64, squares. The graphic is then jumbled-up and obviously you have to un-jumble it. If time runs out, the first piece is replaced, and another piece is taken out. Time is then resumed until you have completed it. The game ends whether you have solved all the puzzles, completed at total of 9999 turns, or given up in frustration!

Nothing about this game is easy..the 4 by 4 grid is lovingly called difficult, whereas the 8 by 8 grid is given over to advanced experts.

Game 4: Flip-it

The final game is based on Othello. Basically you have to cover the board with as many pieces in your particular colour (black or white) than your opponent. Opposing player's pieces are obtained by either surrounding

individual, or lines of pieces with your own. As long as there is one piece of your colour, at the end of the line (diaganal, horizontal, vertical or a combination), and your piece sandwiches that piece with the opposing colour in between, then the other players colours are changed for yours, and your score increases to suit
The computer plays a VERY good game, although it can take a little time for it to work out its moves. You can make the game a little easier (or more difficult) by having an additional 2 or 4 pieces down to start.

Overall, the games are a great improvement on the original (although the original was pretty good!) - all boast clear, detailed graphics, and fluently smooth animation, although sound was minimal. Most of the games can be played by one or two players (except for Pixsaw and Lineup). All games feature keyboard and joystick options, and full instructions for each game
As MindGames 2 was such an improvement on the original, what will a third pack be like? We shall wait and see!

RATINGS	
PRESENTATION	90
COMPATIBILITY	SAM
PARSER	N/A
SOUND	69
OVERALL	92

Now then, another little SAM title which recently fell into our laps, was Kung-Fu Manager, which comes from a local programmer. How many of you have come across a game on the Crash Cover tapes, called "SATCOM"? Well, this is actually from the same programmer, Brian Halhead as reviewed by Joseph.

Over the years we've had all sorts of management games, be it Football, Rugby, Boxing or even running a Software House.
This, however, must be the first time anyone's made a Kung Fu management game.
The idea of the game is to take a rookie fighter (one that isn't in the top 100 fighters) and make him a to world class fighter. At the start of the game you have a choice of 10 fighters to train, the better the fighter the more demanding the contract you must sign.

In the contract you agree to do four things.
A-Make the fighter become the one of the top ten fighters within a particular number of fights.
B-Make sure that his wins exceeds his losses by a certain ratio, for example 5 wins for every 1 defeat.
C-Make sure the fighter wins a certain amount of money per fight fought AFTER all deductions.
D-In training he must train to a set percentage. I'll explain this later.

You are contracted for a set number of fights and if the fighter is pleased with you at the end he

will offer you another slightly more demanding contract If you fail to keep any of the terms though you will be fired immediately!
The game starts with the training menu. In this you are shown all the statistics and moves the fighter can make. There are four statistics Strengh, Stamina, Agility, Balance and twelve moves. The moves are split into eight offensive moves like Roundhouse and four defensive like Block Kick. You have a variable amount of time to split into training these values.

Once you've finished allocating the time you move to the next screen which represents training.You have to press the two training keys (which can be pre-defined) alternately like on the Decathlon type games, except you don't bash your keyboard to oblivion! A slow steady pace is needed here. A graph shows how well you're doing, if everything is going well then the two lines will rise at about 45 degrees. When you've finished a percentage score shows how well you've done.

Next you get the choice of whether to fight or to rest. Resting costs you money and is another chance to train your fighter
Fights take place over 5 rounds, in each round you are shown what moves you and the other fighter make and whether they are successful or whether they are dodged. You are shown the points that you and the opposition have scored and there is a knockout meter to show how close you are to either taking orgiving a K.O.

After the fight is over you are shown the week's relegations and promotions. Then you are given all the costs and winnings for that week. Then you have the option of going to the Bank to take out a loan, just in case you're below your budget.
Comments: Over the years I've played almost every type of management game you could possibly mention, but this is the very first Kung Fu management game I've played. I thought of some pretty screens and good sound FX with a good management side to play also. But sadly I was to be dissapointed. The game is written entirely in text, there are no graphics to look at. The sound is poor and the game itself has nothing astounding to see. The programmer, I think, has tried his best to create a great game, but sadly I find nothing entertaining in it at all. This program has been written entirely in BASIC and it compares itself to many of the Cult games you will find on the Spectrum nowadays.
A great original idea, but lacking in quality and playability

RATINGS	
PRESENTATION	50
COMPATIBILITY	64M
PARSER	N/A
SOUND	42
OVERALL	52

PLAYPEN

Driller - Hit Squad - £2.99
Formerly released by Incentive

When this game was first released - back in 1987 - it was given just about every critical award you could ever possibly think of. Great fuss was made over the time, and cost that was spent on developing the 'Freescape(TM) system. But what is this game about, and why the fuss?

Well, Driller puts you into the distant future, on a planet inhabited by descendants of a colony from Earth - called (no, not Ryvanna, Darren!) Evath This planet, has 2 moons. Mitral and Tricuspid. Mitral is used as a "dumping ground" for all of Evaths criminals (nick-named "Ketars"). There is no early parole for these prisoners!

However, on Mitral, the Ketars had built up a network of mines, in order to extract useful elements. Since the surface of the moon was made of soft rock, a series of metal plates was constructed to act as a base. They had no knowledge of mining, and thus allowed a deadly amount of gas to build up to form large gas pockets on the moon. This would then result in a fatal explosion - destroying the moon, and knocking Evath out of orbit

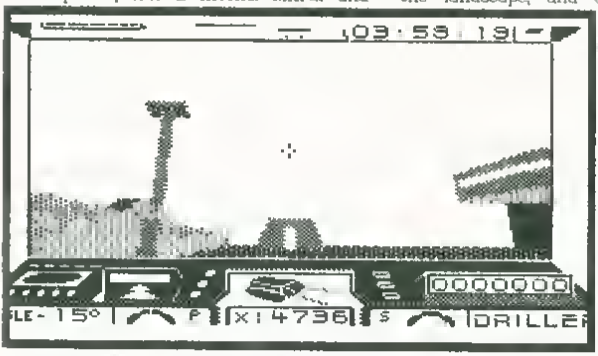
Your job, is to bleed the planet of it's excess gas (a sort of Intergalacfic gripe water?), on each of the 18 plates that form the artificial surface of the planet, before the moon explodes! This is done by beaming a drilling rig, on to each sector, and clearing each area of over 50% of gas. This is made more difficult, by the many defence systems on alert on the planet.

There are also many useful items, such as extra fuel, shields, an aerial craft, and a teleport system That is, if you can find them!!

Graphically, the game is the start of a whole generation of types. It created a system of 3D that allowed total viewpoints on the objects that created the landscape, and an incredible size playing area. But, as with any "first born", it has it's teething troubles - in this case speed, or lack of it!

However, it still remains a unique game - not really matched by any other (except possibly DarkSide), and is certainly well worth splashing out on, especially at 3 quid!

Go on, buy your self a piece of Spectrum history! You might like it!!



RATINGS

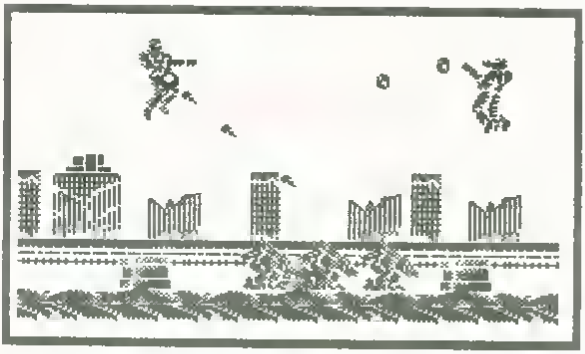
PLAYABILITY	95
ADDICTIVINESS	96
COMPATIBILITY	Both
GRAPHICS	97
SOUND	60
OVERALL	97

[illegible]

[illegible] titles [illegible] months [illegible] among [illegible] -biggie Afterburner.

Forgotten Worlds [illegible] in the Summer of [illegible] it was greeted with rave reviews at he time and promptly shot to the top of the charts. Now we find Forgotten Worlds at the semi-bargain price of '4.00, a full pound higher than other budget labels.

The plot is suitably corny and predictable. Emperor Bios (sounds like a soap powder) has enlisted several evil gods to destroy the cities of the world. The gods have created crumbling ruins which are known as the forgoten worlds and it is you who must save the day. You and a friend, have ben



told to rescue the worlds back from the clutches of Bios. As if this wasn't bad enough, Emperor Bios has three demi-gods to protect him (the scamp)!

There are four areas of play; the city is patrolled by the fierce spider-likerobot guards. At the end of this level, you encounter one of the demi-gods! Overcome this little nuisance and you then move on to the dust world. Here, the dust dragon is certainly out to get you. You must find him and destroy him by firing directly [illegible]

[illegible] world [illegible] in this area. Multitudes of [illegible] defend their zone and the god of war waits in his fortress. A good blast in the shoulder wil kill of this blighter! Finally, enter the god's domain. Bios is geting worried now and he sends out his finest fighting monks to meet you. Snakes and maggots are also deployed to defeat you.

Then you must defeat Bios himself! To aid you, each time a nasty is kiled, it deposits cash. This may then be used at the many shops to upgrade your arsenal. You can purchase homing missiles, lasers, burners, napalm bombs, buy new armour and also boosters for your existing weaponary.

The graphics are well drawn, well animated and colourful. There is certainly lots to do with wave after wave of nasties coming after you. I also liked the idea of using cash bonuses to buy new weapons. My main gripe is the sometimes silly firing system. If fire is pressed and the joystick is moved, then your character turns around. This often leads to some bad scrapes.

But all in all, Forgotten Worlds is a corker! If you missed this first time around then buy it now!

RATINGS

PLAYABILITY	86
ADDICTIVINESS	90
COMPATIBILITY	SPEC.
GRAPHICS	92
SOUND	85
OVERALL	91

Escape From The Planet Of The Robot Monsters - Enigma Variations/ DoMark/ Tengen - £14.99
New Release - 2 Player Game

This arcade conversion, plays homage to the typical 50's "B-Movie" science fiction 'epics', that used to play at the local picture house, on Saturday Nights.
The plot is simplistically simple (rather like the films themselves!): the evil Reptilons, have enslaved countless blonde-haired "bimbo's" and renouned scientist Professor Sarah Bellum (hmm?) and have transported them to their factories on Planet "X". There, they are forced to manufacture an army of robots, to enable the Reptilons to take over Earth!

In aid to foil this dastardly plot, 2 brave men, Jake and Duke, have been selected to free the hostages, rescue the professor, and destroy the Reptilons at the same time!

Upon loading, the game presents you with a 50's style slide-show of typical comic strip orientated piccys, depicting the above plot. These pictures are obviously, Mode 1 graphics (ie standard Spectrum type) although of high quality. This was done, to save memory I suppose! (At a rough guess, they would have took about 80k plus, at mode 4 standard!)

The actual game, is presented in a forced perspective 3D style (viewed from the above left-hand corner). The sprites are very colourful, up to typical Atari ST game standards. The nasties that you encounter, come in all shapes and sizes, from laser-wielding 'Weetabix' automations, to annoying 'hub-cap' droids, that cannot be destroyed and must be avoided, as any contact causes instant death; and the very useful red-robot that when destroyed increases the power of your laser pistol.
All levels have dozens of blond-haired bimbos to rescue. Most of the time, doing this task is easy: pinch their bottoms (that's what it looks like!), and they get teleported to safety. The others are harder to pinch, namely those encased in glass domes, waiting to be robo-zombied! To rescue these, destroy the consoles, shatter the glass, and then pinch their bottoms.

As well as all these bimbos, (with sore bottoms!) there are also some huge alien nasties, to obliterate, at the end of each level. These are fairly unwilling to be blasted out of existence, and thus require a lot of fire power to do the job! (Hint, hint!).
Apparantly, at the end of the game, you must face the Reptilons themselves! This should prove to be a rather awesome task, judging by the talented small-fry on the way to meet them!

Finally, the game features some top-class music, and FX - up to, if not above, the ususal Enigma standard!
Overall, I really recommend this game, to any arcade addict, as it is certainly one of the best so far (appart from Sphera!)!

BUY IT!

RATINGS	
PLAYABILITY	94
ADDICTIVINESS	90
COMPATIBILITY	SAM
GRAPHICS	95
SOUND	90
OVERALL	95

Back-chaT

BY DAVE & DAZ

Lets face it, we don't live in a perfect world. We all make mistakes at one time or another, and this applies to computer programmers as well.
The moment any program makes a wrong turn, the computer automatically lets you know what it thinks has gone wrong, and in most occasions, point you in the right direction, for you to attempt to correct the error.
There are many different errors waiting to happen at one time or another, and each has it's own specific computer error message just waiting to appear on the screen. What you'll see below are the most common error messages, and their causes, that you may encounter in the early days of beginning basic computer programming, on either SAM or the Spectrum.
(SAM versions are bracketed, to make things a little clearer)

1)OK: Don't panic, everythings gone right!
2)NEXT WITHOUT FOR: You either missed out FOR or you've used the wrong variable name.
3)(NAME OF) VARIABLE NOT FOUND: Either the computer can't find the variable, or you've mistyped the variable name.
4)OUT OF MEMORY: Guess what it means! Trying loking at CLEAR or DIM if you've used them.
5)OUT OF SCREEN (OFF SCREEN): You've made your graphic too big in size to fit in the scren area.
6)NUMBER TOO BIG (NUMBER TOO LARGE):Your number is too large to be worked out by the computer. Are you dividing by 0?
7)RETURN WITHOUT GO SUB: There are too many RETURNS and too few GO SUBS!
8)STOP (STOP STATEMENT OR STOP IN INPUT): You've used a stop command, don't panic! CONTINUE should carry it on.
9)INVALID ARGUEMENT: You're computer doesn't like what you have written!
10)INVALID FILE NAME. You are trying to save a file without a title. The title must be 10 characters or less (unless you have a +2a or +3).
11)INTEGER OUT OF RANGE: The number you've used is too big for the command that you using for
12)NONSENSE IN BASIC (NOT UNDERSTOOD): The computer can't understand what you've done.
13)BREAK, CON'T REPEATS: You've hit BREAK or ESCAPE by accident or design. CONTINUE will carry on.
14)OUT OF DATA (DATA HAS ALL BEEN READ): The READ command can't find any more DATA to READ. Have you missed a comma, from the DATA? Or perhaps RESTORE has the wrong number?
15)NO ROOM FOR LINE: Try deleting some of what you've typed to make room. Can also with RENUMber on SAM.
16)STOP IN INPUT:See 8.
17)FOR WITHOUT NEXT: reverse of 2.
18)INVALID COLOUR: you've specified a colour which is not in the allowed range.(0 to 7 on the Spectrum, 0 to 15 on Sam).
19)TAPE LOADING ERROR (LOADING ERROR): Re-check connections, volume, clean tape heads and head alighment (as a last resort) to ensure load or verify works properly.
20)TOO MANY BRACKETS: Guess(spectrum 128 only, related to the PLAY command).
21)NOTE OUT OF RANGE (INVALID NOTE): The note is either too high or too low. You must stick within the given range.
22)BAD FILENAME:See 10.
23)DIRECTORY FULL: You've used up all the file space on a given disc (64 on Spectrum+3, 80 on Sam and +D) SAM owners, consider buying MasterDos, +D owners, look at BetaDos, or UniDos!

24)DISk FULL:guess!
25)DISk IS NOT BOOTABLE. No auto-running file on disK
26)DISk IS WRITE PROTECTED:See last backchat
27)DRIVE B IS NOT PRESENT- Your computer hasn't a dual disK drive.
28)DRIVE NOT READY- Place a disk in the drive.
29)FILE ALREADY EXISTS. You've re-named a file with a name that already exists.
30)FILE IS READ ONLY:A file has been saved with write-protect To read it, remove protect.
31)FILE NOT FOUND- The computer can't locate this particular file on disk
32)INVALID DRIVE:See 27.
33)UNRECOGNISED DISK FORMAT You placed a disk into your computer that was written on non-compatiable computer, or it just hasn't been FORMATed yet!

Well that's the majority of error messages that beginners may encounter, although one or two are rather obscure Don't worry If some of the above computering terms confuse you, we'll be explaining everything easily and clearly when we begin our long-awated series into the art of basic programming, as of next issue. So memorise what you've learned so far, and we'll all reconvine, well some of us, next issue

AD RATES

We have a readers classified section, catering for: For Sale, Wanted, Under £10, Pen-Pals, Notices, Forthcoming Events, Messages, Etc. Charges are 50p, for up to 30 words. Make Postal Orders/Cheques payable to: ZAT (Programming). Send to:
ZAT, PO BOX 488, Tweedale, Telford, Shropshire TF7 4SU.
Trade prices available on request. Any advertisments printed at ZAT's discretion. No piracy encouraging adverts accepted!

THE U.K'S *BIGGEST* SELLING ATARI ST and ZX81 FANZINE.

BETWEEN PLANETS

FROM JAUNARY, BETWEEN PLANETS GOES EXPANSION CRAZY!
With SPECTRUM and GAMEBOY REVIEWS!

AND STILL ONLY 60P FOR 40 A4 PAGES!

FOR DETAILS, WRITE TO
92 WHITELAW DRIVE
BATHGATE WEST LOTHIAN
EH48 1RJ

SUBSCRIPTION SERVICE!

To take out a subscription to ZAT, simply send a cheque or postal order, for £5.50 to:
ZAT (subscriptions), Po Box 488, Tweedale, Telford, Shropshire. TF7 4SU
Please make your cheques etc payable to ZAT (Programming)

SPECIAL OFFER!
Subscribe now, and get 7 issues for the price of 6! This offer must end soon, so hurry!

Publica Dominus

D.LEDBURY & G.MIDDLETON

To kick off this issue's column, I would like to introduce you to my partner - in - crime, the talented Guy Middleton. Anyway, over to you Guy, for now!

May I say a big HELLO to all you Spectrum and Sam owners !

So, who am I? Well, some of you may already know me! I've written a few graphic demo's for PD. Some of these have been reviewed in Your Sinclair, Crash, and also the weekly New Computer Express. These demo's have been very popular so some of you SAMsters have seen my work! When I'm not at work I seem to spend most of my time on my SAM happily tapping away at the keyboard!

What do I do for a living I hear you ask? (I've got good hearing) Well, surprise surprise, I'm a computer systems engineer! For those who haven't the faintest idea what that means, I configure, test and install multi-user computer systems. Any wiser? Oh well!! It's a terrible job and I'm sure that none of you would like to do what I do. After all, I have to play with machines with 32Mb of memory, hard disks that hold over 1 gigabyte (1000 Mb) of information, and all sorts of horrors like writeable optical disks. It you'd like to know something about this sort of thing, please write to me (My address is at the end of the section).

On to the interesting things then...

The SAM Coupe Public Domain Software Association. The SCPDSA is a new operation that has been set up by instruction from SAMCO. It's aim is to let you all have easy access to the many, many PD disks that are available. A lot of the disks are very good. Did you know that there is a special version of TETRIS for the SAM? It has great sound and is written in machine code. Although it doesn't have all the options of the original, it looks very good and is extremely addictive. If you haven't got it. Get It!

Mode 4 screens are also very popular. Some of them have been drawn, but most have been ported over from the Atari ST (A machine with more bugs than the Warner Bros Studio - think about It!) (Oi! Some of us happen to like that bug-ridden machine, you know! DB)

These screens are usually very good, and well worth looking at. The main function of the SCPDSA is to produce a catalogue of ALL the PD titles. This catalogue tells you all about each disk, what's on it, how good it is, the author, and the cost. All you have to do, is to decide which ones you want, write a cheque, and send the order to the SCPDSA. They then pass on the order to the PD houses.

If you would like to get more information on the SCPDSA, then send a Stamped, Addressed Envelope to: SCPDSA, 42 Eaton Drive, Kingston Upon Thames, Surrey, KT2 7QT. Don't forget to tell 'em I sent you! (Otherwise, I'll send the boys round...)

Thank you for the introduction Guy, and for the information on SCPDSA. (Although I still wonder why they call themselves the 'SAM Coupe Public Dispensery for Suicidal Ataris'? Only kidding!) (You'd better be! DB) (Shut up, and get off our page! DL) If you address any queries, for the SCPDSA to Brent Stevens, then the founder himself can deal with them.

Back on the SAM side again, one of the biggest areas of interest in the SAM PD area, is the disk magazine.

Now there a number of SAM disk magazines around. Some of these act like standard PD libraries (the send me a disk and postage costs, and I'll send you

an issue - type system), and others like the conventional paper-based magazines, but on disk!

I actually recieve copies of 2 of the major forces in this area - FRED, and the 'SAM Supplement'. FRED is run by Colin MacDonald, and costs a mere £1, where as the 'Supplement' is run by David Tonks (yes, the same David Tonks who writes the 'Mind Games' series!), and costs £2.

Both of these 'mags' cover vastly different areas. FRED mainly covers Demos, (sound and graphic), and the 'Supplement' caters more for the programmer element.

Basicly, FRED is great for showing off what your SAM is capable of doing, and does a fantastic job of it! (The SCPDSA demo is part created by FRED - miss it at your peril!)

However, if you want to know how to get the best oul of your SAM, then give the 'Supplement' a try! They regularly feature dedicated help and advice, and have a wide staff of experts to hand, to assist in most problems.

As an example, a recent issue of FRED contained a full first level, of a new left/right scrolling shoot-em-up, 'No Way Back'. It contained full mode 4 graphics, full sound effects, etc. This was written in solid BASIC, but is certainly well worth seeing! Typical contents include: Graphics slide-shows, Spectrum game pokes, a regular machine code tutorial, programming competitions, and a variety of other goodies!

Contact Colin Macdonald at. 40 Roundyhill, Monifieth, Dundee, DD5 4RZ.

The latest issue of the 'SAM Supplement' (7 at time of writting) has a variety of goodies, including a very useful PC data reading program, written by the author of 'SpecMaker'. This allows you to read files written by any PC word processing package (eg WordStar), and convert them to SAM. Also included is a routine, so you could write a SAM listing on a PC word processor, and turn it into a program. They have also featured a few graphics by Darren!

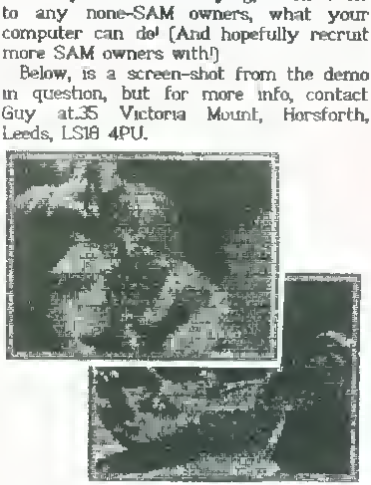
The 'Supplement' regularly features various technical advice from its readers, and offers numerous programming routines and "titbits" for programming dabblers.

Order your copy from Brian Mumford, at: 57 St Saviours Rd, West Croydon, Surrey, CRO 2XE.

There is a growing area of the PD range, on SAM - the area of PD film demos. These normally consist of a number of screens, digitised from the original film (or video), which are usually presented as short animated sequences, more often or not, of the most memorable moments from the film. There is quite a wide variety of choice in this field, as there are at least 2 talented groups working on them. One of the better known authors, is Guy!

One of my favourite pieces of Guys, is his demo of Arnie Shwartz - watsits great film - 'The Terminator' (which I await the sequal of with great relish!). This demo boasts some of Guys best sequences yet - and best quality ones to! Certainly well worth buying, to show off to any none-SAM owners, what your computer can do! (And hopefully recruit more SAM owners with!)

Below, is a screen-shot from the demo in question, but for more info, contact Guy at.35 Victoria Mount, Horsforth, Leeds, LS18 4PU.



CHIP-SHOP

Master Plan by AV

Programming with PAW & GAC (Pt.)

In this issue, I have printed the final set of location & connection print-outs, for your systems. (At long lat, I hear you cry!) Just follow the instructions from last time, and enter the data as before But don't forget to save!
But what comes next, you ask?

Well, since you now have all this data into your system, I think that finally you need to be able to communicate with your 'world'. So, as from next issue, I will commence with the first stages of the volcabulary and how the packages deal with it.

But before I leave you for another time, I would like to repeat this. If anyone is completely stuck on these excellent packages, then PLEASE write in to me, for assiatance. I have had VERY little response to this plea, in the past, so I can only assume that you are having no problems. Is this really true? Till next time, AV

```
Location 46
Bank teller
Location 47
Cash dispenser
Location 48
Bank lobby
Location 49
Cafe entry
Location 50
Food dispenser
Location 51
Seats
Location 52
Stone stairway
Location 53
Corridor
Location 54
Corridor
Location 55
Corridor
Location 56
Corridor
Location 57
East library
Location 58
West library
Location 59
Classroom
Location 60
Classroom
```

```
Location 46 N     TO 47
Location 47 S     TO 46
 W     TO 48
Location 48 E     TO 47
Location 49 N     TO 50
Location 50 S     TO 49
 E     TO 51
Location 51 W     TO 50
Location 52 N     TO 53
Location 53 N     TO 60
 S     TO 52
 W     TO 54
Location 54 N     TO 59
 E     TO 53
 W     TO 55
Location 55 E     TO 54
 W     TO 56
Location 56 E     TO 55
 N     TO 57
Location 57 S     TO 56
 E     TO 58
Location 58 W     TO 57
Location 59 S     TO 54
Location 60 S     TO 53
```

SAM-ANTICS

BY GUY MIDDLETON

As those of you who have played with the SAM BASIC know, it is quite different from the limited Spectrum BASIC.The Coupe allows all manner of complicated functions to be used
Each issue I will give you a short program or part of a large one to type in and use. I will also talk through the program telling you what all the lines do. In this way, I hope to increase your knowledge of the wonderful SAM basic and encourage you all to write programs in it.

We'll start of with a nice easy one, using only a couple of the new functions available to us.
The following is a listing for a program that does all the scoring for you whilst playing darts. It asks you the starting score, the names of the (two) players, who's going first, and each score. It will also tell you the name of the winner! How about writing another program that scores for snooker or any other game?

```
10 MODE 4: CSIZE 8,16: CLS
20 INPUT 'Start scores from ? ';t:let
t1=t,t2=t
30 INPUT "Player 1's name ? ";a$
40 INPUT 'Player 2's name ? ';b$
50 PEN 13: PRINT AT 0,0;a$; AT
0,14;b$:PEN 14:PRINT AT 5,0;t1; AT
5,14;t2
60 PEN 15: INPUT 'Who is going to go
first ? ";c$
70 IF c$=a$ THEN GOTO pl1
80 IF c$=b$ THEN GOTO pl2
90 GOTO 60
100 LABEL pl1
110 INPUT "Player 1's score ? ";a
120 LET t1=t1-a: IF t1=0 THEN GOTO
finished
130 PEN 14: PRINT AT 5,0;t1;"
140 LABEL pl2
150 INPUT 'Player 2's score ? ";a
160 LET t2=t2-a: IF t2=0 THEN GOTO
finished
170 PEN 14: PRINT AT 5,14;t2;"
180 GOTO pl1
190 LABEL finished
200 CLS
210 IF t1=0 THEN PRINT a$+' is the
winner !!!": PAUSE: RUN
220 IF t2=0 THEN PRINT b$+' is the
winner !!!": PAUSE: RUN
```

Line 10 sets the mode, the size of the lettering and clears the screen
20 asks you for the starting score, and then sets both t1 and t2 to equal the the value entered. Variables t1 and t2 hold the scores of each player. Notice how two variables can be set at once, seperating each with a comma.
30 and 40 ask you for the names of the players, LETting a$ and b$ equal the names.
Line 50 prints the names and start scores on the screen at certain points. Remember that as we've set the letters to dual height (line 10), line number 5 on the screen is twice as far down as it normally is!
60 asks who is going first.
70 and 80 simply compare the name that you entered with the names of the players (as set in lines 30 and 40). If the names match, the program GOes TO either pl1 or pl2. Instead of only allowing you to jump to line numbers, SAM BASIC lets you LABEL a line, and then you can GO TO that LABEL name.
90 makes the program go back to asking you the name of the player to go first if there is no match. Notice that UPPER and lower case letters are not the same.

Now that the program is set up, the rest of it is a loop until the players

score equals zero.
Line 110 asks for player one's score.
120 subtracts the score from the current score. If the score is 0, it jumps to the LABEL finished.
Line 130 prints the new score over the old one.
Lines 140 to 180 do the same as the last ones except for player 2 LABEL finished is at 190.
200 clears the screen and 210 and 220 print up the name of the player who's score is zero, waits until you press a key, and then runs the program again. Have a look at lines 210 and 220 where the variables a$ and b$ are added to the string of letters in the " marks.

I hope that this has of some help, and I would very much like to see any programs that you have done. Please send them (preferably on disk) to me (address on PD page).

Program Box by Steven Kemp

Here is a very useful little program, from our new technical writer - Steven Kemp. This is designed to blank out the screen, when you need to hide something in a hurry! It is also very useful, if you want to leave the computer for a long period of time, as it will prevent the image being 'burned" on the screen - this is a feature that is built in the Sam, for this very purpose. An enhanced version of this program will appear in a later issue.

```
10 FOR f=63999 TO 1e9:READ a:IF a<256
THEN POKE f,a:NEXT f
15 PRINT TAB 12;"COVER-UP""
20 PRINT "Pressing SYMBOL SHIFT and
SPACE together at any time will blank
out the screen and border, until a key is
pressed. Ideal for tricky situations when
someone walks in unexpectedly!"
30 PRINT "TO TURN OFF: RANDOMIZE
USR 64008" , , "AND BACK ON:
RANDOMIZE USR 64001"
40 RANDOMIZE USR 64001
50 DATA 11,250,62,249,237,71
60 DATA 237,94,201,237,86,201
70 DATA 229,213,197,245,205
80 DATA 30,250,241,193,209
90 DATA 225,195,56,0,6,8,45
100 DATA 10,1,1,254,127,237,120
110 DATA 203,71,192,203,79,192
120 DATA 33,0,64,17,1,64,1,255, 26,
117,237,176, 175,211,254,201,999
130 PRINT £0;"PRESS A KEY TO DELETE
PROGRAM -":PAUSE 0
140 POKE 23635,PEEK 23637:POKE
23636,PEEK 23638:STOP
```

IntergrateOBitS by Steven Wilson

Welcome to Intergrated Bits, Intergrated Logic's little corner within ZAT, where we can give you info and news on Sam. I appologize if this introduction is a little short, but at present I'm extremely busy!

News: Guy Middleton recently joined us. Why, well I've just about to leave school, but before that, I was too busy at times to program, so work was going very slow. Now things should speed up..Sorry that if anyone is still waiting on Demo Disk 2: It's on its way..

Current Projects: Finishing Light War, designing and programming demo's, new intro's, still programming Xoban's demo of which will be available shortly. I hope you like the rest of the article, so it's goodnight from me..oh and here's a run down on the Intergrated Logic team:

Stephen Wilson: Coding and Design
Brian Mc Connel: Graphics and Design
Mark Longhern: Music and SFX
and Guy Middleton (ZAT PD author)
Coding and Design More members soon but right now...

Register		Bit number								Sam Sound Chip Codes
HEX	DEC	7	6	5	4	3	2	1	0	Function
00	0	R	R	R	R	L	L	L	L	Amplitude setting controller 0
01	1	R	R	R	R	L	L	L	L	Amplitude setting controller 1
02	2	R	R	R	R	L	L	L	L	Amplitude setting - controller 2
03	3	R	R	R	R	L	L	L	L	Amplitude setting - controller 3
04	4	R	R	R	R	L	L	L	L	Amplitude setting - controller 4
05	5	R	R	R	R	L	L	L	L	Amplitude setting - controller 5
06	6	X	X	X	X	X	X	X	X	Reversed for possible expansion
07	7	X	X	X	X	X	X	X	X	Reversed for possible expansion
08	8	T	T	T	T	T	T	T	T	Tone number (n) - generator 0
09	9	T	T	T	T	T	T	T	T	Tone number (n) generator 1
0A	10	T	T	T	T	T	T	T	T	Tone number (n) - generator 2
0B	11	T	T	T	T	T	T	T	T	Tone number (n) - generator 3
0C	12	T	T	T	T	T	T	T	T	Tone number (n) - generator 4
0D	13	T	T	T	T	T	T	T	T	Tone number (n) - generator 5
0E	14	X	X	X	X	X	X	X	X	Reserved for possible expansion
0F	15	X	X	X	X	X	X	X	X	Reserved for possible expansion
10	16	X	B	B	B	X	A	A	A	Octave numbers (m) generators 1 & 0
11	17	X	D	D	D	X	C	C	C	Octave numbers (m) - generators 3 & 2
12	18	X	F	F	F	X	E	E	E	Octave numbers (m) generators 5 & 4
13	19	X	X	X	X	X	X	X	X	Reserved for possible expansion
14	20	X	X	5	4	3	2	1	0	Frequency enable bits
15	21	X	X	5	4	3	2	1	0	Noise enable bits
16	22	X	X	Y	Y	X	X	Y	Y	Noise generator clock frequency select
17	23	X	X	X	X	X	X	X	X	Reserved for possible expansion
18	24	E	E	E	E	E	E	E	E	Envelope generator 0
19	25	E	E	E	E	E	E	E	E	Envelope generator 1
1A	26	X	X	X	X	X	X	X	X	Reserved for possible expansion
1B	27	X	X	X	X	X	X	X	X	Reserved for possible expansion
1C	28	X	X	X	X	X	X	R	S	Master reset and enable
1D	29	X	X	X	X	X	X	X	X	Reserved for possible expansion
1E	30	X	X	X	X	X	X	X	X	Reserved for possible expansion
1F	31	X	X	X	X	X	X	X	X	Reserved for possible expansion

Sam Sound Chip Meanings

The Amplitude settings refer to the Stereo setting so an " R " is for the right and " L " is for the left.
Each of the generators can be programmed for the noise to move left or right just by altering the settings for each controller.
As each side can have up to a volume of 15 (BIN= 1111) to get the both sides together we join the numbers for each register.
The volume for each generator (0 to 5) are registers (0-5), e.g.: if we want a volume of 4 on the right, and 5 on the left we do: either change the numbers into binary 4= BIN 0100, 5= BIN 0101, so we have 01000101 or do the right *16+left: e.g. 4*16+5=89. We must then decide on which generator we want it to sound.
let's say generator 1, so its volume controller is register 1 so we do SOUND 1,89
We can alter the volume in a FOR..NEXT loop; E.G.

```
10 SOUND 28, 1, 20, 1: 16,3
20 FOR LEFT VOL=15 TO 0 STEP 1
30 PAUSE 2
40 SOUND 0, LEFTVOL: NEXT
LEFTVOL
```

That was on the left channel, to get it on the right, type:

```
20 FOR RIGHTVOL=240 TO STEP -16
```

If you are using a mono TV then they will both sound the same.
(To be continued).

SAM TO THE RESCUE
by
DAVID LEDBURY

Some time ago I was asked by my esteemed Editor friend to assist him in a very urgent matter. The problem being that his very realiable ST had decided to take one of its turns, and had infected two of his work data disks with some particularly nasty virus, which had rendered them totally useless.

This is not a rare thing on the ST and had actually happened to me more times than I would ever care to think about. it always seems to happen with a disk that is absolutely full of important information that is totally irreplacable.

So what did i do about it? Well knowing that the textual information of the files would still probably exist somewhere on the disks, although the ST couldn't find it, I created a very simple program that would scan the entire disk for any text

```
10 MODE 3
20 CSIZE 8,8
25 FOR D=0 TO 1
30 FOR T=0 TO 79
40 FOR S=1 TO 9
50 READ AT 1,T+(D*128),S,S0000
60  PRINT  AT  0,0;  "TRACK=";T;"
SECTOR=";S;" ";
70 FOR L=S0000 TO S0511
80 IF PEEK L>31 AND PEEK L<123
THEN PRINT MEM$(L TO L);
90 NEXT L
100 PAUSE 30
110 CLS
120 NEXT S
130 NEXT T
140 NEXT D
```

Some of you may recognise this as being similiar to my infamous Atari File Coverter program (in ZAT 5), well the principal is the same with this, as the other.

Now this program will go through EVERY position on one side of the disk, and will display ANY text it finds.

WARNING! Since this relies on you looking at the text, it does take quite a while indeed. i would estimate it to be about 30 seconds per scan (+an extra 30 seconds unless you are holding down a key!). Multiply this by 80, and you get 40 minutes (or 80) to read half a disk! Therefore DO NOT stare at your screen continusly for 40 minutes plus! It won't do your eyes any good at all!

To get the routine to work on the spectrum (+D/ Disiple), remove lines 10 and 20 and replace "READ AT" with "LOAD @" and MEM$ (L TO L) with "CHR$ PEEK L;".

The long Ryvenian afternoon wanes, the evening hours begin. Time to set work aside, to relax, have a drink or two, to talk.

Now that my taste buds are satiated with amber nectar, I'm in the right frame of mind to hear your piece. An try to explain what the hell's been going on.

I'll tell you the whole story but before I do, I just want to say that I appologise.

For what?

You'll find out what for, after I've told you everything. Did you study history?

Get close A.

"Then you knew that a century ago, the Third World had had enough of the developed world plundering their resources - they banded together, pooling technological skills acquired from the south, creating a military body rivalling that of the Western states."

"Yeah, our side tried to stop their little game using sanctions, political pressure. I remember that the East Block, went even further, to try an get the two sides to talk things over."

"But even that hope fell to earth with a bump, war came in the end, lasting for three years, ending up in a stalemate which both sides were determined to break. So both began to try and develop the "ultimate weapon" that would wipe the other side clean off the earth, yet ensure that valuable resources would be salvageable to by the victor to shape a world governed by their particular philosophies."

"And even though battle still raged everywhere, and the Hooded Men continued to get many new clients, the East still tried to find a way to stop the fireworks. In the end their slim gamble paid off, a conference was called, both sides put their cards on the table."

"A few days of arguments, which slowly forged a mutual trust, and then a few dozen scribbles on another Peace Treaty, and as quickly as the war started, it ended."

Antaro Security Vault, built by expectant corporations to store their precious hoards of Cybaz, its ore.

a hope, thank a to the crisis that has become nothing more than a pipe dream.

It's supposedly impregnable but they said that about the ideology behind Communism.

Taser set, BDZ discharge.

Both in line.

Done!

Disposing of the two bodies in nearby foliage, the group make their way inside.

where?

Tell Croy to bring the car to the main entrance, we'll be over an done in 5 minutes.

that is as soon this gentlemen here has kindly opened the vault for us, haven't you?

Y yes.

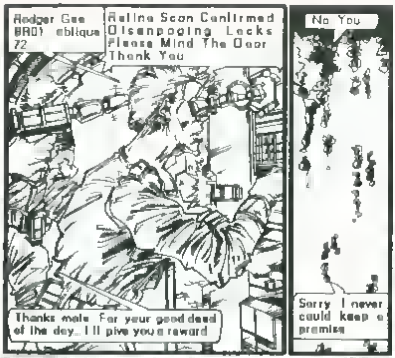
Don't worry, I promise I won't harm a single hair on your head, as long as you do as I ask.

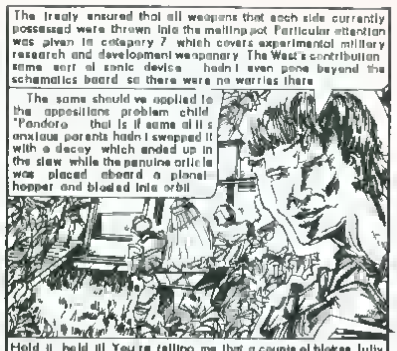
SENTINEL

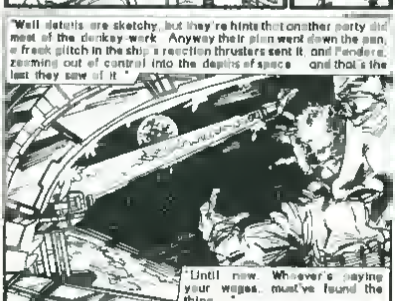
ART and STORY
D.BLACKBURN

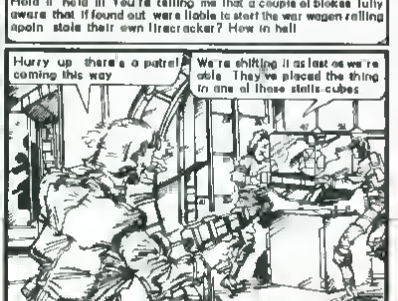
SCRIPT ASST
M.GARBETT

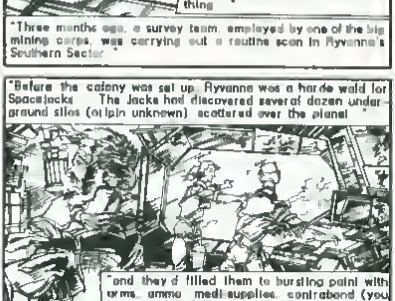
LETTERING
M.SEEBY & P.CHARLES











* of the Inter Stellar Directive, which states that any unidentified vessel or derelict that could cause a potential hazard, or is of potential historical reference, must be notified to the Terran Bureau of Investigation. Any failure to comply will result in immediate prosecution.

The data sent back was scrutinized by TBI, who identified the ship, Nemesis from their archives. This info also brought Pandora back into the picture after a 98 year hiatus.

As you can imagine, it caused a few headaches for TBI, an' made several Presidium officials go on the boil.

I bet it did! There's a lot of folks out there who'd like to get their dainty mitts on a deep hickey like that an wouldn't have any qualms about using it too.

So the politics got TBI to do the dirty work, an they got you to play errand boy right?

They considered me sufficiently "adept" to do the job well. As a further precaution, I was officially placed on IADT*, as far as anyone was concerned. I was a lowly Sol-Da, who "had" a career as a Sentinel, going on a routine haul with a close associate.

Haven't you drunk enough ?

* In-Active Duty List

I'll be the best judge of that, you just carry on... I'm listening.

TBI placed the ship and the surrounding area in a "hazzard zone", releasing a concocted story along the lines that the ship's fusion drive showed signs of deterioration, anyway, it worked, ensuring that there were no spectators to observe Pandora's recovery.

I was given the basics, except for any details on what Pandora actually does. TBI consider that too much of a security risk, even TBI's bright boys are kept in the dark, so whatever is inside that casket, only top brass know about it.

"Surely your powers must've given you some kind of clue ?"

I used them to correctly identify Pandora, since it's description was hazy but that's as far as I went, although I'll admit I was tempted.

"Anyway, that's mostly it. I'll collect the device in the morning, and in 3 weeks we'll be home and dry."

Now don't get evasive. Sure you've given me a potted history, but I think you've left few holes to fill in. I mean you've neglected to mention that your s truly played a leading role in this little drama an so far I've heard nothing to warrant a guilt trip.

One thing I hate are mysteries, so own up. It can't be all bad can't it?

Meanwhile

Simmons and Orlando, they're down, we've got to

Forget them. We're 10 minutes behind as it is. Any more delays an you can explain to my employer why we failed to keep to his deadline.

Besides they knew, like any of us, that there's more chances of buying the farm in this line of work than any other.

ZAT PROFILE NO. 3
DARREN BLACKBURN

ZAT JOB & DUTIES: Once upon a time I was just the art editor, but now, after continual grovelling, I'm now Editor of ZAT. I'm also the writer/creator/artist of Sentinel, and adviser to several other zines, besides ZAT.
PREVIOUS JOBS: I worked as a designer for Shropshire's County Museum Service.
CURRENT JOB: at present I am a ET trainee at L.D.T.O., studying programming and in charge of the company's newsletter.
PLACE OF BIRTH: Cross Houses, near Shrewsbury.
PEOPLE AT SCHOOL THOUGHT I WAS: Very quiet and whom never thought I'd become a over-bearing bossy person with an excessive ego.
HOBBIES: Drawing of course, writing, doing fanzines, amateur astronomy, CB radio user, computing and keeping fit and healthy.
AGE: 23

LAST BOOK I READ WAS: The Legacy of Heorot by Niven, Pournelle and Barnes
LAST MOVIE I SAW WAS: I rarely go to the pictures, but the last good movie I saw was Ghost.
FAVOURITE/LEAST FAVOURITE TV PROGRAMMES: Favourites: Doctor Who, Star Trek (both versions), Crystal Maze and Eastenders. Least favourites: Bob's yer Uncle, Big Break.

FAVOURITE PERFORMERS: Kate O'Mara, anyone who played The Doctor, Michael Caine, Arnold Schwarzenegger, the list goes on...
ODDEST HABIT: Saying "what" every time someone asks me a question...
GREATEST ACHIEVEMENT: Designing the Team Sam logo (at present).
GREATEST UNFULLFILLED AMBITION: To finish the next episode of Sentinel, to try and bring back both DW and the Terminal Man and make ZAT the best fanzine in the universe...
THE WORLD WILL REMEMBER ME AS: ...someone who wouldn't give an answer to this question.

TURBO *THE FANZINE FOR SAM COUPE USERS!*
WITH GAME REVIEWS, ADVENTURE SECTION, INTERVIEWS, PREVIEWS AND MUCH MORE!! Subscribers can have access to our PD LIBRARY.
£5.00 FOR 5 ISSUES £10.00 FOR 11 ISSUES.
Cheques payable to A. BETTS
or SAE to TURBO, 8 HEALEY, TAMWORTH, STAFFORDSHIRE, B77 2RF.

BOOKSHELF

BY MICK GARBETT

Greetings! I have been conned into writing a series of reviews on books, so it might be a good idea to introduce myself.

My name is Mick Garbett, and I am over 21. During my time I have read some 10000+ books (and watched an average of 2 films a day for 20 years!). This I think means that I am experienced in being able to judge what I think is good or bad in the way of entertainment.

I will concentrate on Fantasy and Science Fiction in both areas, even though I have a much wider range of interest. Now I must warn you that even if I give a bad review to a book it doesn't mean that I think you won't enjoy it, it merely means that from my point of view the book in question is lacking. You are the best judge of your own taste, please remember that.

Also I must make it clear from the start that I am opposed to censorship in politics, the arts, music or any other field. We have rights to express our own point of view even if those in authority disagree (Darren, please take note). I hope that you will find my section of this magazine to your taste as this is the last time I am going to be SERIOUS!

GOD GAME by ANDREW M. GREELEY. Price £2.85p

This is a difficult book to read, and an even harder book to understand. One reason for this is that the author tries very hard to appear intellectual (he may well be) but unfortunately ends up being pretentious.

The basic idea of this novel, the blurring of the border between "fantasy" and "reality" is good and shows great potential in many ways.

The reason that the story breaks down is that Greeley gets into concepts that the average reader will have trouble swallowing with a Siberian salt mine.

Now Greeley is obviously an intelligent man, so why does he write in such a bad way? It may be that he was trying to make some sort of point with his style, if so I'm afraid that I missed it completely.

All that remains when you extract the drivel about God as a women (don't get writing in in calling me a chauvinist because I merely think that this debate is not suited to the genre Greeley has used), is a second-rate fantasy tale that has lost the potential to be the master piece it should've been.

MILLENIUM by JOHN VARLEY
Price subject to alteration

This book written in 1983 was recently made into a 'major' film by MGM/UA and is currently out on video. Now I will warn you straight away that this is a complex plotline that some bright spark in Hollywood thought to simplify in the film. Basically (I refuse to use the word simply) this is a time travel/love story/thriller with only slightly fewer twists than a Alpine road.

The two main characters are Bill Smith and Louise Baltimore played in the film by Kris Kristofferson and Cheryl Ladd respectively. In the book there is a third important character, Sherman, Louise's robot servant/bodyguard/lover: this character is vastly reduced in importance in the film, to the great detriment of the storyline.

Bill is a Aviation Accident Investigator who becomes embroiled in the plot during the investigation of a no survivor mid air collision between a DC10 and a 747. Needless to say he does not find things that easy, when laced with digital watches that go backwards, all the bodies having eaten the same in-flight movie meal and a woman who acts strangely every time she claps eyes on him. He manages to keep a remarkable grip on his sanity (sometimes).

Louise is the leader of a snatch team from the future, where the world is totally screwed up as a result of earlier times (no pointing the finger at any particular generation). Her job to remove the passengers from situations where they are not going to be missed. Obviously something goes wrong.

I don't want to say too much about the story as it is not typical time travel fare. The book has some excellent touches within a fairly adult theme. For example watch out for the cock-pit flight recorder, its a nervous breakdown lying in wait for a suitable victim. Overall I recommend both the film and book versions of this story to anyone who hasn't already encountered them. MG

COMIC KIOSK by D. Blackburn

ANIVERSARIES

This year marks a few notable aniversaries for characters associated with the Marvel stable. Foramost is the Golden Aniversary of the Sentinel of Liberty Captain America. Created in 1941 by Stan Lee and Jack Kirby, Cap started out as an inspirational image for American troofighting overseas in the carnage of the second World War. After the war, Cap fadad from view, to reappear in the 60's (having spent the interim period in suspended animation in a block of ice), staring in his own book, and later as a pivitol member of the mighty Avengers.

During the 50 years there have been endless tragic, and memorable, events, too many to list here, although notable events include the re-birth of Cap's greatest nanemis, the Red Skull, being stripped of his powers, and become abnormally powerful, and renouncing his cherished identity on two occasions, one to becoma briefly the Nomad, and later by the U.S government, although this plot turned out to be a plan by the Red skull.

Like any special occasion, there's always a collector's issue, in this case, no 389, containing a special celebratory tale called " I Am Legend". Look out for the distinctive gold cover, artwork by Jim Lee and Ron Lim, Cap's regular artist.

Other aniversaries this year include the 350th issue of the Amazing Spiderman, the 50th issue of the Silver Surfer (vol3) and the 350th issue of Marvel's first and world's greatest comic magazine, the Fantastic Four. All of these will bacama notable collector's items and are not to be missad.

Batman: Tha Caped Crusader Hit Squad £2.99

This, the second in the Batman trilogy, is probably the ona more closely associated with tha comic strip form, although for its plot, it utilises the camp 60's programme for inspiration rathar than the violent and surreal trend brought in by Miller in the early 80's.

The game is divided into 2 saperate arcade/adventurers starring tha Joker and Penguin respectively. In "A Fate Worse Than Death" Joker has kidnapped the Boy Wonder, holding him prisonar in a carnivat that he has rented. He sands his arch-enemy an invitation to rescue his cohort from a nasty demise. While in " A Bird in Tha Hand", the Panguin bides for world domination (a typical super-villain's favourite goal); as you can expect only one man can stop him.

Both gamas possess the sama format, even though thair plots are vaguely different, a combination of problems, with helpful clues emphasized by comic balloon captions, and beating up endless mindless minions, and the villain of the piece, characterised by the familiar blurb s KA POW!, THUNK! and SHTHOOMMM!

Graphically its a comic delight, sharp monochrome pictures, layed out in familiar comic strip form, some static, most forming the backdrop for the animinated sprites. Music is also good, mimicking the familiar 60's thame tune. It's a well produced, playable game. The puzzles not to cryptic or to easy to solve, suitable for the adventure types, while the endless bashing of villains will keep the arcade player happy and content.

PLAYABILITY	90
ADDICTIVINESS	90
COMPATIBILITY	SPEC
GRAPHICS	94
SOUND	89
OVERALL	91

This will be the last Comic Kiosk on a regular basis. As of next issue, CK will swap places every two issues with Mick's Bookshelf. All being well, I'll be back in ZAT 10 when I will be writing about the latest batch of comic-related movies coming your way in tha year ahead (with luck), and I may do the odd game review as well. So it's goodbye for now (by the way, anyone who likes films, and videos should read both mine and Mick's column in the Adventurer's Herald and the new Blast It zine coming soon).

ON THE ROAD

BY *db.*

For the first time the All Format's Fair left the confines of London, and moved some 120 odd miles up the M1, M6 and M42 to the National Motorcycle Museum on the outskirts of Birmingham.

We arrived at 8.00 p.m. in Mac's trusty car. Our party consisted of myself, Malcolm, David (wearing a suit heaven's forbid) and Soapbox resident writer/critic Martin. As it was beginning to rain, we quickly gathered up our assortment of belongings. After several minutes of hectic scrambling, set up our stand between Format and the Sam Supplement.

Before the show began, we attended a brief meeting with fellow Team Sam members, "chaired" by Alan Miles (I use the word chaired loosly since Alan actually stood on his own two legs during the meet), then it was time to brace ourselves before the onslaught of early arrivals. To be quite frank, by the end of the day, this show's attendance figures must've left the previous London attendance ratings lounging way back in last place. During the day, all the attending Z-Team had time to wander through the several halls, and every time they reached the main enterance, the queue outside seemed not to have diminished at all.

So what happened at the show then, you may ask? Well, there's a lot to tell, so lets get straight on with it. Firstly we met fellow member of the ZAT team, Demo creator himself Guy Middleton, whose pulse-pounding demos, including Star Wars, Robocop, Total Recall and his latest release, Terminator, were sold on our stand, as well as our own bits and pieces. All of this, on the whole attracted a lot of attention from the throng.

Then of course we bumped into (quite literally) into all manner of familiar faces: Bob Brenchley of Format (whom we shared stand space with thanks Bob), Nev Young, David Tonks of the Sam Supplement, Steve Nutting, David Wornham, whose crime prevention demo was great, even if I didn't score very well on it (although someone I know scored a perfect 100%).

We also received a demo copy of GM Software's latest Sam business utility, their Spreadsheet, which with their other business utility, their database, we will be reviewing in the next issue.

One thing that really got me laughing was that due to that suit, poor David got continually mistaken for Brent Stevens of the S.C.P.D.S.A. (is this a compliment or an insult, I'll leave it to you to figure out).

As I mentioned earlier, we all had a chance to wander around, and gain our own impressions of the show especially Malcolm and Martin, since this was their first show. Tell you what lets hear from them what they thought about it all.

Malcolm: Well I finally got to go to a show with Darren and Dave (my fellow cohorts of ZAT). I had been eager to go to the previous shows, but due to family matters, prevented me from going. A pity really because my attendance at the B'ham show really opened my eyes as to what I had been missing.

Loads and loads of goodies going cheep, lots of good sized stalls packed with bargains galore to rummage through, and best of all there were bargains for all, no matter what machines individuals use. The show was very well organised and sign posted well, so was easy to find. It was a very friendly atmosphere and stall holders took their time to talk to you and give advice to their customers. I think the big stalls should take a leaf out of this book. All in all a great time was had by everyone, and special thanks to Bob Brenchley of Format who let us share his stall.

Martin: The A.F.C. Show on April 21st was the first one I'd been to and I think that it was a very useful day out.

It was very similar to amateur Radio Rallies that I've been going to for several years, the books and bargains available in the field of computing, office equipment and stationary were very good as was the chance to do a few deals and strike a few bargains! I wonder how many games and utilities released on to the market are a direct result of such meetings at the A.F.C. Shows?

Were you there? No? you'll have fun, but do bring your wallet as you'll have some serious savings to dol I was able to get a copy of Monopoly, Scrabble and Cluedo for a C64 for a few quid, and several bargains for the C64 and for my Speccy too of course!

Thanks guys. Well what else happened. Crash's Nick Roberts dropped in on us (although it took me a few minutes to figure out exactly who he was, as I couldn't for some time place the face with the name). Nick has recently given us a copy of his new demo, which will be included on ZAT's first official PD disk. (We hope)

One thing that I will complain about is this (and it's trivial really, but show organisers should take note anyway): although the venue was outstanding why

was the distance between our stands to the only available toilets in the complex, out did my extended Editorial..and if that isn't bad enough, bringing a tray of tea from the upstairs cafe though the multitudes is an event that the Olympic Committee should consider including for future events

Now then, before I bring this column to a close, here's David with a few comments of his own to express

Well, as you may have gathered it seems that the others enjoyed their first show I too enjoyed this new venue The only real objection that I had, was that the building became very claustrophobic especially when the halls were packed with the many thousands of customers which didn't take too long to arrive! Next time, I think I'll have to escape for a bit of fresh air!

The show had a number of goodies for SAM owners, Enigma was showing off Escape From The Planet Of The Robot Monsters (reviewed this issue), and Klax, Klax is due for release very soon, and may be reviewed in the next issue Blue Alpha were showing off their SAMpler (which I splashed out on), Outlet was selling their wordprocessor; OutWrite, GM Soft had there excellent Spreadsheet and Database on sale (on a stand next to Steve's Software who was selling his filing system!), Also on sale at the show, was a new fanzine called "Sinclair & SAM Computing"

The Masters Of Magic were running a SAM PD stand with FRED & the SCPDSA's catalogue on sale, not mentioning their own goodies! Not forgetting SAMCO, who were demonstrating the Spectrum/SAM transfer interface "The Messenger", with 'Batman The Movie being transfered betweeen the 2 machines, I can see plenty of networking uses for the interface as well.

Anyway, that's enough waffle from me, as I think Darren wants to close this bit off! Thanks David. In the end, it was a very successful day, especially since we managed to grab an exclusive interview with Alan Miles (at long last) which appears next issue Already there are plans to host another show in Birmingham, as well as the possibility of shows inBristol, Leeds and other cities in the future Overall, it was not just a success for us, but for all those who participated, and thus the All Format's Fairs will undoubtably continue

FLEXIBASE SOFTWARE
DAVID WORNHAM
20 THE PARKLANDS
DROITWICH SPA
WORCS
WR9 7DG

flexibase sam booklet update

The Flexipage booklet has now been re-written for Sam users, ommiting the confusing references to alternative Spectrum commands
The latest Flexipage update has additions to the screen prompts, 4 alternative page lengths/character heights the original 5 line double height characters 10 line single height, 10 line double height (with selected pages being "addable") and 20 line single height
Owners of Master DOS can now use within Flexipage the option of memory ramdisk for screen$ save and "instant" picture display and program data UDG and character load/save
New Sam customers will receive the latest version with the new orange cover booklet
All Sam customers continue to receive free disk updates, at approximate monthly intervals, on return of the original (first copied for use in the meantime) disk and SAE An additional 1st class stamp would be appreciated to cover the cost of the update leaflet
Sam Flexipage owners with the yellow covered booklet can obtain the latest orange covered Sam specific booklet by sending £1 50 and original disk for updating no SAE is needed

DAVID WORNHAM

What's up next

There's the beginning of our exclusive interview with Alan Miles, part 1 of the beginners guide to Basic, plus the usual good stuff ZAT 9 is due out in the second week of July

GUY'S DEMOS

SAM Coupe film demos, by Guy Middleton

G Middleton: 35, Victoria Mount
Horsforth, Leeds, LS18 4PU

Total Recall (256k or 512k version)	£1.50
Robocop	£1.50
Star Wars	£1.50
Mad Max	£1.50
Quiz One (Christmas Quiz)	£1.50
Total Recall (Executive Version)	£2.50

Special Offer!

Terminator (2 disks)	Normal Price	£5.00
	Special Price	£4.00

(All cheques to be made payable to: G.Middleton)